

In the Claims

Please amend Claims 50, 57 and 75 and add Claims 77-81, all as shown below. All pending claims are reproduced below, including those that remain unchanged.

1.-49. (Canceled)

50. (Currently Amended) A system for utilizing a workflow language, comprising:

a computer including a processing device operating thereon;

a program source file stored on a computer readable medium, wherein the program source file includes a source code and classes therein; and

a workflow definition created using a workflow language that is specified in the form of annotations to the source code and the classes, and wherein said workflow language extends the source code with a plurality of workflow constructs, including constructs for defining parallel processing of a workflow and separate workflow branches therein, and wherein the workflow definition further includes a construct to terminate the parallel processing of the workflow when certain conditions are met; and

~~means for creating a workflow program according to said workflow definition, including object code executed by the processor, the object code configured to~~

use a workflow program according to said workflow definition, including processing, using the computer including the processing device operating thereon, means for the computer to read the source file and process the plurality of workflow constructs to activate a workflow, including creating separate workflow processes corresponding to the separate workflow branches,

pass information including files, documents, and/or tasks between system resources according to a set of procedural rules to generate activities at the computer as defined by the workflow definition specified in the form of annotations to the source code and classes,

activate ~~means for activating~~ each of the separate workflow processes to subsequently generate activities at the computer as defined by each workflow branch, and

determine ~~means for determining when~~ the certain conditions specified in the source file have occurred and then terminating the parallel processing of the workflow.

51. (Previously Presented) The system of claim 50, wherein the workflow definition is invoked by executing a software application.

52. (Previously Presented) The system of claim 50, wherein the plurality of workflow definition constructs are provided as XML commands that are then used as annotations to the source code and the classes.

53. (Previously Presented) The system of claim 50, further comprising a light-weight virtual machine at the computer that processes the workflow and that is enabled to, at a particular point in the workflow process, save the workflow's execution space including program stack and variable state, and, at a later point in time, revive the workflow at the same point in the workflow process using the saved program stack and variable state.

54. (Previously Presented) The system of claim 50, wherein the program source file is a Web Service file that includes the workflow definition constructs.

55. (Previously Presented) The system of claim 54, wherein the workflow definition constructs of the Web Service file also references methods and variables for a software application running on the system and using the workflow.

56. (Previously Presented) The system of claim 54, wherein workflow definitions are provided as a separate Work Flow file that includes workflow definition commands, and that are invoked by the Web Service file using the workflow definition constructs, to use the workflow as defined by the Work Flow file.

57. (Currently Amended) A method for utilizing a workflow language, comprising:

selecting a program source file including a workflow definition created using a workflow language, wherein the program source file includes a source code and classes therein and a workflow definition created using a workflow language that is specified in the form of annotations to the source code and the classes; [[,]]

~~, and wherein said workflow language~~

~~extending—extends~~ the source code with a plurality of workflow constructs, including constructs for defining parallel processing of a workflow and separate workflow branches therein, ~~and~~ wherein the workflow definition further includes a construct to terminate the parallel processing of the workflow when certain conditions are met; and

using a workflow program according to said workflow definition, including

processing, using a computer including a processing device operating thereon, the plurality of workflow constructs to activate a workflow, including creating separate workflow processes corresponding to the separate workflow branches,

passing, according to the workflow definition in the form of annotations to the source code, information including files, documents, and/or tasks between system resources according to a set of procedural rules to generate activities at the computer as defined by the workflow definition specified in the form of annotations to the source code and classes.

activating each of the separate workflow processes to subsequently generate activities at the computer as defined by each workflow branch, and

determining when the certain conditions specified in the source file have occurred and then terminating the parallel processing of the workflow.

58. (Previously Presented) The method of claim 57, wherein the workflow definition is invoked by executing a software application.

59. (Previously Presented) The method of claim 57, wherein the plurality of workflow definition constructs are provided as XML commands that are then used as annotations to the source code and the classes.

60. (Previously Presented) The method of claim 57, further comprising using a light-weight virtual machine at the computer that processes the workflow and that is enabled to, at a particular point in the workflow process, save the workflow's execution space including program stack and variable state, and, at a later point in time, revive the workflow at the same point in the workflow process using the saved program stack and variable state.

61. (Previously Presented) The method of claim 57, wherein the program source file is a Web Service file that includes the workflow definition constructs.

62. (Previously Presented) The method of claim 61, wherein the workflow definition constructs of the Web Service file also references methods and variables for a software application running on the system and using the workflow.

63. (Previously Presented) The method of claim 61, wherein workflow definitions are provided as a separate Work Flow file that includes workflow definition commands, and that are invoked by the Web Service file using the workflow definition constructs, to use the workflow as defined by the Work Flow file.

64.-70. (Canceled)

71. (Previously Presented) The system of claim 55, wherein the Web Service file includes the workflow definition constructs as a plurality of XML workflow annotations to the source code and classes defined in the Web Service file.

72. (Previously Presented) The system of claim 71, wherein the XML workflow annotations to the source code and classes define a flow logic that can then reference the methods and variables defined in the Web Service file.

73. (Previously Presented) The method of claim 62, wherein the Web Service file includes the workflow definition constructs as a plurality of XML workflow annotations to the source code and classes defined in the Web Service file.

74. (Previously Presented) The method of claim 73, wherein the XML workflow annotations to the source code and classes define a flow logic that can then reference the methods and variables defined in the Web Service file.

75. (Previously Presented) A system for utilizing a workflow language, comprising:
a computer including a processing device operating thereon;
a Web Service source file stored on a computer readable medium, wherein the Web Service source file includes a source code and classes therein; and
a workflow definition created using a workflow language that is specified in the form of annotations to the source code and the classes, and wherein said workflow language extends the source code with a plurality of workflow constructs provided as XML commands that are then used as the annotations to the source code and the classes, including constructs for defining parallel processing of a workflow and separate workflow branches therein, and wherein the workflow definition further includes a construct to terminate the parallel processing of the workflow when certain conditions are met;

a Work Flow file, separate from said Web Service source file, that includes workflow definition commands, and that are invoked by the Web Service source file using the workflow constructs; and

a logic on the computer for creating a workflow program according to said workflow definition, including reading both the Web Service source file and the Work Flow file to;

use using the Web Service source file to create a Web Service running on the computer, and processing the plurality of workflow constructs to activate a workflow, including reading the definitions from the Work Flow file, creating separate workflow processes corresponding to the separate workflow branches, ~~and then~~

pass information including files, documents, and/or tasks between system resources according to a set of procedural rules to generate activities at the computer as defined by the workflow definition specified in the form of annotations to the source code and classes,

activate ~~activating~~ each of the separate workflow processes to subsequently generate activities at the computer as defined by each workflow branch,[[.]]

determine when the certain conditions specified in the source file have occurred and then terminating the parallel processing of the workflow.

76. (New) The system of claim 50, wherein the workflow definition includes
a looping construct with ordering of messages received defined by a second language added to an existing programming language;
a program written using said workflow language; and
a workflow container to handle ordering of messages received in a program.

77. (New) The system of claim 50, wherein the light-weight virtual machine is configured to set the workflow program in a dormant condition; and
revive the dormant workflow program to its exact state before going dormant.

78. (New) The system of claim 50 including
a java programming language as the program source file, wherein the Java programming language is extended by adding workflow constructs to said Java programming language, and wherein said extending further comprises embedding the workflow constructs defined by XML in the Java programming language.

79. (New) The method of claim 57, wherein the workflow definition includes

a looping construct with ordering of messages received defined by a second language added to an existing programming language;

a program written using said workflow language; and

a workflow container to handle ordering of messages received in a program.

80. (New) The method of claim 57, wherein the light-weight virtual machine is configured to set the workflow program in a dormant condition; and
revive the dormant workflow program to its exact state before going dormant.

81. (New) The method of claim 57 including
a Java programming language as the program source file, wherein the Java programming language is extended by adding workflow constructs to said Java programming language, and wherein said extending further comprises embedding the workflow constructs defined by XML in the Java programming language.